

CN 90101692.6

METHODS OF PRODUCING ABSORBING
MATERIALS BY MEANS OF POTASSIUM
PERMANGANATE INITIATED FIBER GRAFTING
AND MODIFYING

ABSTRACT

The present invention relates to methods of producing absorbing materials by grafting and polymerizing fibers. If means of grafting reactions of fibers and acrylonitrile and the like are used to make absorbing materials, people will generally use cerium salt as the initiator. Such means are high in grafting efficiency, but also suffer from the drawback of high costs. The present invention discloses a method in which potassium permanganate is used in the acidic media as the initiator to replace the cerium salt. By allowing the cotton fiber or synthetic fiber to conduct grafting reaction, absorbing materials in the form of fiber are obtained. By means of grafting the microcrystalline cellulose, absorbing

materials in the form of powder are obtained. Absorbing materials obtained in the present invention are capable of absorbing non-ionized water whose weight may be 20 to 200 times of its own. When absorbed with water, the materials are not fragile to fragmentation and have a strong water-detaining ability. It can be widely used in health, agriculture or forestry applications.